Sustainable Regional Development
- Integrated Regional Development Planning and Management -

United Nations Centre for Regional Development

Sustainable Regional Development

- Sustainable Environmental Development
  Securing stable environmental resources for the future

- Sustainable Economic Development
  Securing stable and efficient regional economic development for the future

- Sustainable Social Development
  Securing social equality, welfare, culture and historicity for the future

Sustainable Development:
Development that meets the needs of the present generation without compromising the ability of future generation to meet their own needs (inter-generation equity)
Understanding of Interactions between social, economic and environmental factors

Source: OECD (2001)

Sustainable Regional Development

Regional Development = improve living standard
- prevent big disparities among and within regions
- preserve and utilize local resources
- integrate urban and rural

Sustainability 
Satisfaction in Life
Comfortable Life
Economic Stability
Health, Education, Culture
Safety and Security
Disaster Management

Human Security

Environmental Management

UNCRD/AIT-VN Training Course on Management and Administration of Local Government Institutions for Bangladesh
19-20 March 2014
Aichi, Japan
Planning and Managing

Upward Spiral

PDCA cycle
⇒ P: plan
⇒ D: do
⇒ C: check
⇒ A: act

All the stakeholders' involvement

Structure of the integrated regional plan

Comprehensive/basic regional plan: 10 year
- Background of the plan
- Trends of the times: issues and challenges
- Climate and characteristics of the region
- Regional vision
- Basic approach to the plan
- Basic indexes of the plan
- Regional design in the future
- Strategies for the regional development
- Goal setting
- Time frame
- Indexes for monitoring and evaluation
- Administration system
- ↓↓

Implementation plan: over a 3-year period
- Management of the progress of the basic regional plan (PDCA cycle)
- ↓↓

Annual Fiscal Budget

Individual plans (sectoral plans)
- Health and welfare plan
- Housing plan
- Environment plan
- Infrastructure (road, water, drainage, sewage)
- Economy
- Disaster management
- Land use plan
- Education and culture
- Etc.
Modernization of Japan

Meiji Restoration (1868)
- Abolition of feudalism → modernization
- Agriculture-based economy → industrialization

Slogans “enrich the country and strengthen the military” and “increase production and promote industry”
- Attempts to emulate the West by introducing modern industrial technologies

Government-initiated industrialization
- Development of private enterprises → establishment of 4 major industrial zones, heavy and chemical industrialization, development of the industrial base, infrastructure

The end of WWII (1945) → post-war devastation → reconstruction to the pre-war level
- Priority production system (coal, iron and steel, electricity, and fertilizer) → trickle down effect to other industries
- Comprehensive National Land Development Law in 1950
- Comprehensive development plan for special areas 1950～(22 major water systems) → increase in food production, development of electric power resources, management of forests and riparian areas, development of unused resources → depending on foreign capitals and technologies → absorption of technologies

Income Doubling Plan (1960)
(The Pacific Belt Zone Plan)
Objectives:
Comprehensive use of national land, development, conservation, appropriate industrial location, improvement of social welfare

Regionally balanced development + economic development

New industrial cities and special areas for industrial consolidation
Shinkansen network and the expressway network (New Comprehensive National Development Plan)

Comprehensive National Development Plan
(1962～)

Approved year | Target year | Basic objective | Development strategy
---|---|---|---
1st | 1962 | 1970 Regionally balanced development | Development of selected key regions
2nd | 1969 | 1985 Improvement of environment | Promotion of large-scale projects
3rd | 1977 | 1985 Comprehensive improvement of human living environment | Integrated residence policy
5th | 1998 | 2010 - 2015 Creation of multi-axial national land structure | Participation and cooperation
### Comprehensive National Development Plan

**Date of Cabinet Decision**: October 5, 1962

**Cabinet of the Prime Minister**: The Ikeda Cabinet

**Background**
1. Shifting over to high economic growth
2. Overpopulated city and income disparity problems
3. The Double Income Project (The Pacific Belt Zone Plan)

**Basic Goal**: Well-balanced progress among regions

**Development Method**

< **Growth pole concept**>

To accomplish the goal, it is necessary to disperse industries. Place various points around Tokyo and big cities, and relate them with the big cities. By traffic and communication facilities, connect them each other and effect them each other. Develop various points keeping each character in the way of chain reaction and promote balanced development among areas.

### New Comprehensive National Development Plan

**Date of Cabinet Decision**: May 30, 1969

**Cabinet of the Prime Minister**: The Sato Cabinet

**Background**
1. High economic growth
2. Concentration of population and industries in the big cities
3. Progress of computerization, globalization, and technical innovation

**Basic Goal**: Creation of a rich environment

**Development Method**

< **Big scale project concept**>

Develop public transportation system like the Shinkansen and expressways, and promote big scale project. Rectify unbalanced land usage, and solve regional disparity between overpopulated and underpopulated areas.
### 3rd Comprehensive National Development Plan

<table>
<thead>
<tr>
<th>Date of Cabinet Decision</th>
<th>November 4, 1977</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cabinet of the Prime Minister</td>
<td>The Fukuda Cabinet</td>
</tr>
</tbody>
</table>
| Background | 1. Stable economic growth  
2. Signs of decentralization of population and industry  
3. It became obvious that national resources and energies are limited |
| Basic Goal | Development of the general living environment |
| Development Method |  
<Stable human Settlement development concept>  
Restrict concentration of population and industries in big cities, and promote local area, coping with overpopulation and underpopulation problem. Promote well-balanced land usage and develop general living environment. |

Source: MLIT

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### 4th Comprehensive National Development Plan

<table>
<thead>
<tr>
<th>Date of Cabinet Decision</th>
<th>June 30, 1987</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cabinet of the Prime Minister</td>
<td>The Nakasone Cabinet</td>
</tr>
</tbody>
</table>
| Background | 1. Concentration of population and various functions in Tokyo  
2. Serious employment problems in local cities by rapid change of industrial structure  
3. Progress of real globalization |
| Basic Goal | Construction of the national land with scattered poles |
| Development Method |  
<Interactive network concept>  
1. For construction of the national land with scattered poles: promote regional development with an inventive idea, making the most of regional character.  
2. Develop base traffic network, information and communication system by the state or basic state policies in all over the country.  
3. Make various exchange opportunities, cooperating the state, local and private groups. |

Source: MLIT
Date of Cabinet Decision: March 31, 1998

Cabinet of the Prime Minister: The Hashimoto Cabinet

Background:
1. "Global Era" (Global environment problem, big competition, interchange with the Asian countries)
2. Population decrease and aging society period
3. Information-oriented society

Basic Goal: Construction of basic of national land with many axes

Development Method:
- Participation and Cooperation
  - Construction by various subjects and regional cooperation (4 strategies)
  1. Creation of living area with a lot of nature (small city, farm, mountain and fishing villages, medium mountain area, etc.)
  2. Renovation of big cities (repair, renew and effective use of big city space)
  3. Development of the axis of regional cooperation (regions form a line along an axis and cooperate one another)
  4. Formation of wide international exchange area (it has an international exchange function)

Relationship among Development Plans:

Balanced regional development with economic growth policy, strong coordination among different institutions and levels of government

- Comprehensive National Development Plan (National Government)
- Regional Development Plan (National Government)
- Prefectural Comprehensive Plan (Prefectural Government)
- Municipal Comprehensive Plan (Municipal Government)

- Economic Plan (National Government)
- Sectorial Plan (National Government)
- Plan for Housing, Health, Environment, Industry, regional vitalization etc
- Plans for Welfare, Health, Environment, Industry, City plan, rural vitalization etc

Source: MLIT
### Comprehensive Plan

<table>
<thead>
<tr>
<th>Level</th>
<th>Name of Plan</th>
<th>Term</th>
</tr>
</thead>
</table>
| **National Level** | **Comprehensive National Development Plan (ZENSO)** (Comprehensive National Development Law) | 1. 1962-1970  
                 |                                                           | 2. 1969-1985  
                 |                                                           | 3. 1977-1987  
                 |                                                           | 4. 1987-2000  
                 |                                                           | 5. 1998-2010  |
| **Regional Level** | **Chubu Region Development and Improvement Plan** (Chubu Region Development and Improvement Law) | 1. 1968-1985  
                     |                                                           | 2. 1978-1988  
                     |                                                           | 3. 1988-2003  
                     |                                                           | 4. 2000-2015  |
| **Prefectural Level** | **Aichi Prefectural Plan** | 1. 1958-1965  
                          |                                                           | 2. 1961-1970  
                          |                                                           | 4. 1976-1985  
                          |                                                           | 5. 1982-1990  
                          |                                                           | 7. 1998-2010  
                          |                                                           | 8. 2000-2015  |
| **Municipal Level** | **Nagoya City Plan**                                     | 1977~                                       |
|                 |   ▶ **Nagoya City Basic Concept Plan** (Local Autonomy Law) | 1. 1980~1990  
                 |                                                           | 2. 1988~2000  
                 |                                                           | 3. 2000~2010  |
|                 |   ▶ **Nagoya City Basic Plan**                           |                                           |

### Results

- High economic growth / stable growth, increase in GDP
- Accompanied by many problems
- Rural-to-urban migration → occurrence of overpopulation and depopulation problems
- Disintegration of communities

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Aichi, Japan
**Income distribution**

- **Gini Coefficient**

<table>
<thead>
<tr>
<th>Range</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>~10%</td>
<td>Existence of artificial background for achieving equalized distribution</td>
</tr>
<tr>
<td>10~20</td>
<td>Fairly equal distribution with a concern to discourage people’s motivation for improvement</td>
</tr>
<tr>
<td>20~30</td>
<td>Common and usual distribution</td>
</tr>
<tr>
<td>30~40</td>
<td>Some disparity but with positive aspects for the improvement through competition</td>
</tr>
<tr>
<td>40~50</td>
<td>Serious disparity</td>
</tr>
<tr>
<td>50~</td>
<td>Corrective actions required if no particular justification exists</td>
</tr>
</tbody>
</table>
### Income Disparities among Prefectures

<table>
<thead>
<tr>
<th>Selected prefectures</th>
<th>Region to which the prefecture belongs</th>
<th>Per capita prefectoral income (current price)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1970 (A)</td>
</tr>
<tr>
<td>Hokkaido</td>
<td>Hokkaido</td>
<td>0.473</td>
</tr>
<tr>
<td></td>
<td>Tohoku</td>
<td>0.416</td>
</tr>
<tr>
<td></td>
<td>Hokuriku</td>
<td>0.518</td>
</tr>
<tr>
<td></td>
<td>NCR (1)</td>
<td>0.489</td>
</tr>
<tr>
<td>Yamagata</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ishikawa</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tochigi</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pacific</td>
<td>Tokyo (2)</td>
<td>0.872</td>
</tr>
<tr>
<td>Metropolitan Belt Zone</td>
<td>Aichi</td>
<td>0.685</td>
</tr>
<tr>
<td></td>
<td>Chubu</td>
<td>0.767</td>
</tr>
<tr>
<td></td>
<td>Kinki</td>
<td></td>
</tr>
<tr>
<td>Okayama</td>
<td></td>
<td>0.558</td>
</tr>
<tr>
<td></td>
<td>Chugoku</td>
<td>0.370</td>
</tr>
<tr>
<td>Tottori</td>
<td></td>
<td>0.472</td>
</tr>
<tr>
<td>Kochi</td>
<td></td>
<td>0.309</td>
</tr>
<tr>
<td>Oita</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Okinawa (3)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes:
1. NCR: National Capital Region
2. Prefecture with the highest per capita income
3. Prefecture with the lowest per capita income
(A) Index: Tokyo = 100.0

### Population concentration

<table>
<thead>
<tr>
<th>Tokyo area: 26.7%, Osaka area: 14.4%, Nagoya area: 8.7%</th>
</tr>
</thead>
</table>

Tokyo area: Tokyo,Kanagawa,Saitama,Chiba
Osaka area: Osaka,Hyogo,Kyoto,Nara
Nagoya area:Aichi,Gifu,Mie

*Overpopulated region and depopulated region → urban and rural issues → introducing industry into rural area while restricting industry in metropolis*
Results

✓ Pollution and environmental destruction
✓ Collapse of indigenous industries
✓ Bias of tax revenue
✓ Increase in local government expenditure
✓ Regional gap caused by structural recession
✓ Competitive race in Globalization

Pollution incidents

Environmental Problem

- Industrial pollution (1955-1975)
  → Anti-pollution measures;
     Law suit, citizens movement, municipalities’ movement,
     Anti-pollution Acts (Bottom up system)

Environmental standard, Anti-pollution technology, P.P.P.

Smoke from factories darkens the sky
Factory waste flows into the sea
Children wearing dust masks on their way to school

(Photo courtesy of Asahi Shimbun Publishing Co.)
### Outline of Four Major Pollution Lawsuits

<table>
<thead>
<tr>
<th>Case</th>
<th>Date of suit</th>
<th>No. of plaintiffs</th>
<th>Defendant</th>
<th>Compensation claimed</th>
<th>Date of sentence</th>
</tr>
</thead>
</table>

**Outline of sentence**

- Legal causation between the factory waste water and the disease
- Breach of duty for safety by the defendant
- Causation between the dust and the disease
- Concerted illegal action by the defendants
- Failure in selection of location
- Failure in performing duty
- Proximate causation between the mine waste water and the disease
- Breach of duty by the defendant (Causation between the waste water and the disease was admitted by the defendant, and so it was not judged.)

**Certified Victims (death)**

- Minamata disease: 690 (339)
- Yokkaichi asthma: 636 (-)
- itai-itai disease: 183 (174)
- Minamata disease: 2,265 (1,373)

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### Current Environmental Issues

- **Pollution caused by citizens:** traffic pollution, domestic drain, noise
- **Waste problem caused by peoples’ lifestyle**
- **Complex sources of pollution, global environmental issues, dioxin problem, medicine and food pollution**
- **From anti-pollution measures to environmental measures (environmental management)**
- **Sustainable Production and Consumption**
- **Recycling-Oriented Society (3Rs) → Green Economy**
Early morning, January 17, 1995
A major quake registers

Damage Caused by the Earthquake in Hyogo Prefecture (as of December 27, 2001)

- **Dead**: 6,400
- **Missing**: 3
- **Injured**: 40,092
  - (10,494 seriously injured and 29,598 slightly injured)

**Total damage to houses:**
- (completely/ partially destroyed, completely/ partially burnt)
  - **448,928 households**
  - **248,412 buildings**

*Fires broke out in many places immediately after the quake*

*Collapsed houses*

**Damage caused by the great Hanshin-Awaji Earthquake**

*Collapsed building*  
*Railway train tracks were mangled*  
*Container berth with a large crack*  
*Collapsed Hanshin Expressway Kobe Route*
Damage caused by The Great Eastern Japan Earthquake and Tsunami 14:46, March 11, 2011

A major quake registers a magnitude of 9.0

Dead: 15,884
(Iwate Pref. 4,673, Miyagi Pref. 9,537, Fukushima Pref. 1,607,
Other Pref. 67)
Missing: 2,636
(As of February 10, 2014)

Evacuation life: More than 111,000 live shelters after losing homes in the disaster, or have to flee the effect of the nuclear accident (As of July 11, 2011)

Fukushima Daiichi nuclear power plant was damaged: crisis level 7 (International Nuclear and Radiological Event Scale; INES)
• Improve social welfare supporting system
• Improve living environment (infrastructure)

Economic Goal

Friction

• Pollution, health problem
• Living environment deterioration
• Distraction of the natural environment and traditional culture of the region
• Weakness in disaster
• Decline in rural vitality, strong dependency on government

Regional Development Planning (Exogenous Regional Development)
• Prepare the good business environment for industries
• Reduce regional disparities by dispersing industries throughout country, public investment and subsidy to rural area
• Avoid the over concentration in the big cities

Countermeasures

Legal Controls and New Technology
◆ Anti-pollution law
◆ Anti-pollution technical innovation
◆ Polluter-Pays Principle
◆ Nature Preservation Law
◆ Basic Environment Law
◆ Recycling-oriented technology and society
◆ Building Standard Law
◆ Disaster Management Plan

Rural Revitalization
◆ Depopulated Area Revitalization Law
◆ Intensive public works and special subsidy for rural areas

Endogenous Regional Development (EnRD)
Endogenous regional development (EnRD) measures utilizing local resources

Utilization of local resources based on local biodiversity, traditions, and skills. (“Only One”)

Creation of new local industries
Pursuit of a circular flow of local development activities (ex. Senary industry)

Conservation and Sustainable use of local biodiversity and environment

Nexus of urban-rural linkages

In contrast to exogenous regional development (ExRD) measures utilizing outside resources with legal controls, technical innovation, etc.

Community empowerment/revitalization

By the ownership of the local people and organizations (citizens, local governments, business enterprises, etc.)

In cooperation with outsiders

Conservation
Utilization
Creation

Capacity Development* = Sustainable Society

* UNDP defines CD as the process by which individuals, organizations, institutions, and societies develop “abilities” (individually and collectively) to perform functions, solve problems, and set and achieve objectives.
Summary

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United Nations Centre for Regional Development

Exogenous Regional Development (ExRD):
Process of development promoted by the governments utilizing outside resources with legal controls, technical innovation, etc. (Towards a rapid industrialization)

Endogenous Regional Development (EnRD):
Process of development promoted by the initiative of local people with the use of local resources based on local culture, traditions and skills. (Towards a sustainable livelihood)

Mixed of two approaches

Regional Development in Japan
• Since 1868  **Meiji Restoration**  
  *(Shogun System → Emperor system)*  
  - Enrich the country & strengthen the military  
  - Increase production and promote industry  
  
  Four major industrial zones  
  Development of the industrial base  
  Agriculture-based economy  

• Since 1946  **Post war reconstruction**  
  *(Emperor system → Popular sovereignty)*  
  - **Priority production system**  
    
  coal, iron and steel, electricity, and fertilizer  
  rural population 60%  

• **1951~1960**  
  Comprehensive development for river systems  
  - 22 Major Water Systems  
  - Dam development; electric power, soil & water conservation,  
    water, cities, agriculture, industry, service  
  - Industrialization (heavy chemical industry)  
  - Technical assistance by the developed countries, time of loan  
  - Rapid rural-to-urban migration (urbanization) → until beginning of 1970’s
1962~2005
Comprehensive National Development Plan

- Economic growth + disparity adjustment
  (industrial decentralization)
  Exogenous regional development

- Living environment

- Environmental conservation

- Postindustrial
  Urban population 84%

- High-tech, IT

- Lightweight, Small
  Processing/Manufacturing

- Heavy & Large
  Petrochemistry / Basic material industry

1960~
Economic development
(Industrial structural adjustment)

1975~
Improvement of Living environment

2006~
Utilization / Preservation

- Pollution
- Anti-pollution measures
- Energy/Resources (Oil etc)
- Technological innovation
- Energy conservation
- Environmental issues
- Globalization
- Eco-technology business
- New technology development
- Creation of new industry

- Regional disparity
- Subsidy
- Public investment
- Dispersal of industry (Endogenous development)
- Rural development
- Endogenous development (OVOP etc)
- Utilization / Preservation

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UNCRD
• 2006~ **New National Land Sustainability Law**
  
  - Development → Utilization, conservation
    
    Decentralization, Engaged Governance
    
    Self-help, mutual assistance, public assistance
  
  Sustainable Regional development: regionally well balanced
development consist of industry, culture & tourism, traffic &
information and communication, disaster prevention, land &
resources, environmental conservation, welfare, new public

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Thank You